



West Approach Seismic Retrofit Project

04-0435V4

November 20, 2005

**Monthly
Construction
Progress
Bulletin
Issue No. 015**



West Approach Seismic
Retrofit Project
04-0435V4

Project Summary

The West Approach project, a seismic project, begins at the 5th street ramps and continues eastward to the San Francisco Anchorage of the San Francisco Oakland Bay Bridge (SFOBB) at Beale Street. The project also includes the retrofit of the West Loop of the TTT.

In 1936, as part of the original San Francisco Oakland Bay Bridge construction, some of the existing West Approach to the SFOBB was completed. Originally, the SFOBB carried both eastbound and westbound automobile traffic on the upper deck, and rail on the lower deck. In the 1950's, the Bayshore viaduct was constructed, and modifications to the West Approach were made that removed the rail system and dedicated the SFOBB to automobile traffic, with the lower deck to eastbound, and the upper to westbound. This configuration stands today.

The West Approach carries approximately 280,000 vehicles per day. The existing westbound structure has five lanes at the Anchorage that transition into three lanes as it spans 4th Street to Rincon Hill. Both directions have lane widths that are approximately 11 feet with no shoulders. Currently, the West Approach is a double-deck structure from 3rd Street to the Anchorage with one foundation system supporting both decks, which is similar to the Cypress Freeway prior to the Loma Prieta earthquake.

The West Approach has three major components:

1. The mainline westbound and eastbound roadways, some portions being double decked, extending from 4th Street to the San Francisco Anchorage of the Bay Bridge
2. The 5th Street on and off ramps and the on and off ramps at Rincon Hill.
3. The TTT ramps, also known as the West Loop, are located between the Fremont Street exit of the Bay Bridge and the TTT building at Mission and First Streets.

The structures to be retrofitted by removal and replacement are:

1. Eastbound Mainline from 4th Street to Rincon Hill
2. Westbound Mainline from 4th Street to the San Francisco Anchorage



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3. 5th Street on/off ramps
4. Harrison off ramp
5. Fremont off ramp
6. Sterling on ramp
7. East Loop (1 & 1/2 blocks)

The structures to be retrofitted in-place are:

1. Eastbound and westbound Mainline structures that span 4th Street
2. The Eastbound Mainline between the San Francisco Anchorage and Rincon Hill
3. The TTT West Loop

Upon the completion of the retrofit project, the West Approach mainline and ramps will have the same number of lanes with improved geometrics and widths (including shoulders) where the existing conditions permit. The mainline eastbound and westbound structures will be adjacent to each other at 4th Street and transition to an outrigger configuration from Rincon Hill to the Anchorage in order to tie into the SFOBB. The new mainline structures will be concrete box girders and will have independent foundations of cast-in-drilled-hole piles.

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1) Accomplishments for the month of November 2005

The contractor, Tutor Saliba, is constructing interim and permanent structures by the San Francisco Anchorage, over Perry Street, 4th Street, 5th Street, Harrison Off-Ramp, and Transbay Transit Terminal Loop. The status of these structures is as follow:

Bridge No.	Structure name	Progress Report	Comment(s)	Structure Division
34-0088	Bayshore Viaduct - 4th street (retrofit)	In progress	%80 complete	2
34-0127S	Fremont St off ramp (replace)	Completed	Punch list items	13
34-0128K	Harrison St off ramp (replace)	Closed on 9/6/05 (For 3 years)	%100 (Demolition) %7	13
34-0130M	MSE wall - Bryant st	-	%0	13
34-0141M	MSE wall - Fremont Leg	Completed	%100	13
34-0142M	MSE wall - Folsom Leg	Completed	%100	13
34-0143	Interim TBT on ramp	Completed	%100	13
34-0145	Interim GTR on ramp	Completed	Constructed/Removed	13
34-0146	Interim TBT off ramp	Completed	%100	13
34-0119Y	Transbay Terminal Ramps (retrofit)	Completed	%100	11
34-0119Y	TBT - East Loop	Near Completion	%98 completed	13
34-0126R/L	Mainline (I-80W)	In progress	%76 completed	2
34-0118R	Lower deck (widen and retrofit)	In progress	%08 completed	2
34-0129C & 34-0138C	5th St. on / off ramp (replace/new)	In progress	Off-Ramp Demo %100 New Struc. %5 On-Ramp Demo %50 New Struc. %0	2
RW-101	First St on ramp retaining wall	In progress	%85 completed	2
34-0003	SFOBB West Anchorage	In progress	%50 demolition	2
34-0149	Interim - Essex st on ramp	In progress	%50 (piles & columns)	13
34-0150	Interim - First st on ramp	In progress	%50 (piles & columns)	13
34-0148	Interim - Fremont street off ramp	Completed	%100 (punch list)	13
34-0152	Interim - 5th st on ramp	Completed	%100	13
34-0151	Interim - Eastbound detour	In progress	%75	13
34-0154C	Turnaround Structure (Transbay)	In progress	%90	13
	Interim 5 th St. off-ramp (K3A line)	In progress	%100	

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Areas where contractor has done most of the work

Major areas where contractor has done most of the work for the month of November 2005 are:

1. New Westbound I-80 (Frames 1U, 2U).
2. Frames 7U and 8U of I-80 (pre-demolition activities for frame 8U and construction of Frame 7U/N)
3. 4th street retrofit, 5th street off-ramp
4. Interim – Eastbound detour
5. Harrison off-ramp

□ I-80 Westbound

○ Frame 1U – 6U

- For the most part, Frames 1U – 6U have been completed and are in use by the motorist. The contractor is continuing punch list items and the remaining work for frames 1U-6U.
 - Frame 1U: Completed drilling, installing steel cage, placing concrete for CIDH piles for bents 2U3 and 2U4.
 - Began to drill for CIDH pile at 1U5
 - Frame 2U: completed piles, and columns for bents 3U3, 3U4, 3U5, 4U5, and 5U3.
 - Began to erect falsework for frame 2U stage 2

○ Frame 7U & 8U

Frame 7U north:

- The demolition of Frame 7U (north section) has been completed. The contractor began and completed drilling, placing rebar cage and concrete for piles and columns for bents 20U2 and 21U2.
- TSC began falsework erection for construction of 7U north

Frame 8U north:

- The contractor is continuing pre-demolition activities for bents 1-6 of frame 8U.
- Completed installing interim support at South Anchorage

□ Interim supports - mainline (near 4th St., bents R-7 and R-8)

- No activity

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- ❑ Interim eastbound detour (ST6D line)
 - Began to place rebar for deck at frame 6
 - Completed erecting falsework for frame 6
 - Completed placing form, rebar, and concrete for bent caps (3-5)
 - Completed placing rebar and concrete deck for frames 3-5
- ❑ Lower Deck – Widen and Retrofit
 - Continue to work on retaining wall foundation
- ❑ UFR Line (New Fremont Off-Ramp/Folsom Leg)
Opened to motorists on April/01/2005.
 - Continued punch-list items (UFR)
 - Completed forming the foundation at abutment for Buss Off line
- ❑ 4th Street retrofit
 - Bent L-104
 - Continuing construction of 36"-D CIDH pile at L-104 left
 - Bent R-102 left
 - Continuing construction of 36"-D CIDH pile at R-102 left
 - Bent L-6
 - Completed drill and bond dowels for bent cap
 - Bent R-6
 - Continuing to drill and bond dowels for bent cap
- ❑ TBT Turnaround
 - Completed placing concrete for deck – No activity
- ❑ TL Line
 - Installed additional fencing at bent 17
- ❑ Fifth Street On-Ramp (T5ON line)
 - Opened to motorists – no construction activities
- ❑ Fifth Street Off-Ramp (K3A line)
 - Completed placing backfill for bents 1-5
 - Completed drilling for CIDH pile at bent 8 pile number 1, and began at pile number 2
 - Began pile driving operation for CISS piles for bents 1 – 5

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- ❑ Harrison Off-Ramp (existing / New)
 - Completed demolition of Harrison off-ramp
 - Began and completed drilling for CIDH piles at bent 23
 - Began to drill for CIDH pile at bent 22

2) 30-day Look Ahead

- ❑ Continue Frame 7U North Construction
- ❑ 4th Street Retrofit will continue.
- ❑ Continue TBT Turnaround
- ❑ Continue Westbound Route 80
- ❑ Continue 5th Street Off Ramp
- ❑ Complete Transbay Terminal Ramps Retrofit

3) 6-month Look Ahead

- ❑ Remove Interim TBT Off Line
- ❑ Complete Frame 7U North Construction
- ❑ 4th Street Retrofit will continue.
- ❑ Complete Transbay Terminal Ramps Retrofit
- ❑ Complete TBT Turnaround
- ❑ Continue Interim First Street On Ramp and Interim Essex Street On Ramp
- ❑ Complete Stage 1 Interim Eastbound Detour
- ❑ Continue Westbound Route 80
- ❑ Complete 5th Street Off Ramp

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Project Photos

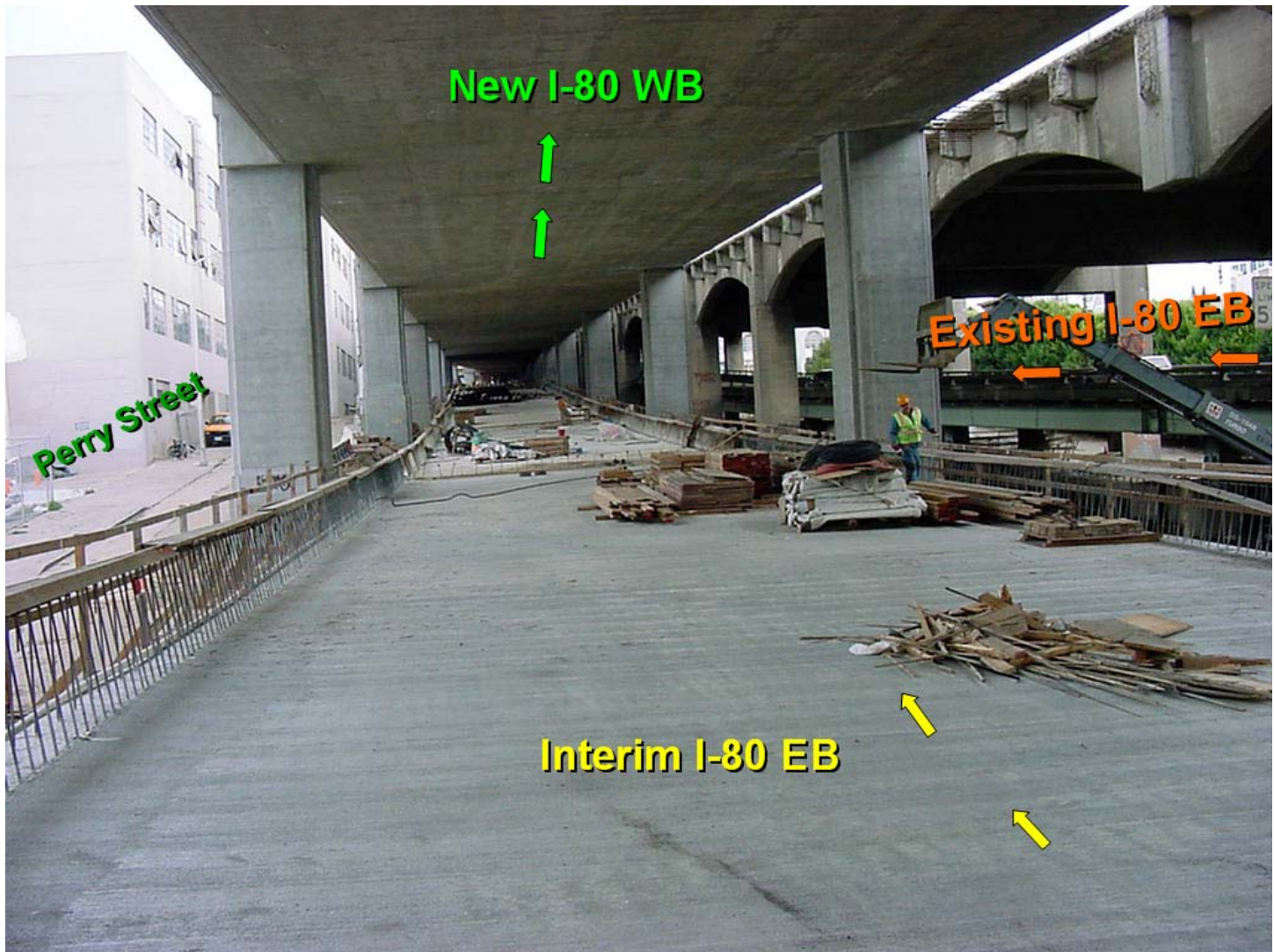


Frame 7U North (demolished and under construction)

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Interim I-80 EB along Perry Street between 3rd and 2nd Streets (Frames 3-5)

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New 5th Street Off-Ramp
(Bents 1-5, CISS Piles)

New 5th Street Off-Ramp (bents 1-5)

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New I-80 WB and 5th Street Off-Ramp